initial investment allocated to at least one of the asset classes, and a desired withdrawal amount comprising a fixed dollar amount and a fixed percentage of the projected portfolio value;

generating a probabilistic distribution of investment outcomes for the financial portfolio on an incremental basis within a designated time period by determining a plurality of projected portfolio values using the historical rates of return of the asset classes and the rate of inflation; and

determining, for each of the projected portfolio values, a projected withdrawal amount that corresponds to the desired withdrawal amount by adding together the fixed percentage amount of the projected portfolio value and the fixed dollar amount and adjusting for the rate of inflation.

#### REMARKS

Reconsideration of the above-identified application in view of the foregoing amendments and the following remarks is respectfully requested.

#### A. Status Of The Claims / Explanation of Amendments

Claims 90-121 were pending in this application and were rejected. As to matters of form, claims 90-111 and 116-17 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. The Examiner questions the scope of these claims because it is allegedly unclear how "the desired withdrawal amount" relates to "the fixed percentage amount."

Respectfully, the pending claims are clear in this regard. Nonetheless, Applicants have amended claims 90, 97, 104 and 111 to recite, inter alia, "determining, for each of the projected portfolio values, a projected withdrawal amount that corresponds to the desired withdrawal amount by adding together the fixed percentage amount of the projected portfolio

value and the fixed dollar amount." Similar amendments were made to claims 116 and 117. Support for these amendments is found throughout the application and in particular at Figures 8A-8C and pages 25-26. These amendments were not made for any substantial reason related to patentability (§§ 102 or 103). Entry of these amendments is requested under 37 C.F.R. § 1.116 as complying with a matter of form raised in the Office Action.

Withdrawal of the § 112 rejection is respectfully requested, because the language of these claims is clear. As would be understood by one skilled in the art, the language of these claims refers to a withdrawal method that is shown, for example, in Example 3 (Figures 8A-8C). The total withdrawal amount in these claims includes two components – a fixed dollar amount and a fixed percentage amount. In Example 3, the fixed dollar component has a value of \$40,000 and the fixed percent amount always remains equal to 4% of the current value of the portfolio. The data from Applicants' Figures 8B and 8C illustrates this calculation:

APPLICANTS' EXAMPLE 3 PORTFOLIO VALUES AND WITHDRAWAL CALCULATIONS

Year	Median <u>Portfolio Value</u>	Fixed <u>Dollar Amount</u>	Fixed Percent Amount	Total <u>Amount</u>
0	\$1,000,000			
1	\$1,031,518	\$40,000	\$40,000	\$80,000
2	\$1,058,242	\$40,000	\$39,871	\$79,871
3	\$1,078,583	\$40,000	\$39,301	\$79,301
4	\$1,103,022	\$40,000	\$38,685	\$78,685
5	\$1,123,023	\$40,000	\$37,988	\$77,988
6	\$1,153,922	\$40,000	\$37,276	\$77,276
7	\$1,172,252	\$40,000	\$36,621	\$76,621
8	\$1,186,507	\$40,000	\$35,949	\$75,949
9	\$1,205,470	\$40,000	\$34,913	\$74,913
10	\$1,222,233	\$40,000	\$34,210	\$74,210

Thus, the fixed percent amount in Example 3 has a dollar value that varies with the dollar value of the portfolio. Reconsideration and withdrawal of the § 112 rejection is requested. If the Examiner continues to find the claim language unclear, Applicants would welcome any suggestions the Examiner may have.

The citation to Applicants' Example 3 and to Figures 8B-8C is not meant to be limiting. Applicants assert that many additional embodiments are encompassed by the pending claims.

In addition to these amendments, Applicants have amended claim 120 to describe that the withdrawal amount has "a fixed dollar amount" as well as "a fixed percentage of the projected portfolio value." Support for this amendment is found throughout the application and in particular in Example 3 (Figures 8A-8C).

No new matter will be added to this application by entry of these amendments. In accordance with PTO practice, a copy of the claims showing interlineated changes is provided in the attached Appendix A.

As to the merits, claims 90-121 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,219,650 to Friend et al. (the "Friend '650 patent") in view of Bernstein, "The Retirement Calculator From Hell," ASSET CLASS (Nov. 10, 1998) ("Bernstein"). For the reasons discussed below, this rejection is traversed.

# B. Claims 90-111 And 120 Are Patentably Distinct From The Friend '650 Patent In View Of Bernstein

Applicants' independent claim 90 recites:

### 90. A method comprising:

obtaining data comprising rates of return for a plurality of asset classes and at least one rate of inflation;

obtaining for a particular individual a financial portfolio to be evaluated based on an initial investment allocated to at least one of the asset classes, and a desired withdrawal amount having a fixed dollar amount and a fixed percentage amount;

generating a probabilistic distribution of investment outcomes for the financial portfolio on an incremental basis within a designated time period by determining a plurality of projected portfolio values using the rates of return for the asset classes and the rate of inflation; and

determining, for each of the projected portfolio values, a projected withdrawal amount that corresponds to the desired withdrawal amount by adding together the fixed percentage amount of the projected portfolio value and the fixed dollar amount.

As to this claim, the factual dispute is a simple one – does Bernstein disclose "a desired withdrawal amount having a fixed dollar amount and a fixed percentage amount" as recited in Claim 90. The Office Action admits that "[the] Friend ['650 patent] fails to teach projected withdrawal amounts for each of the projected values that correspond to a predefined 'desired withdrawal amount.'" 12/3/02 Office Action at p. 5. Thus, there is no dispute that the Friend '650 patent fails to teach, disclose or suggest the above-quoted claim element.

1. Bernstein Fails To Teach, Disclose Or Suggest "A Desired Withdrawal Amount Having A Fixed Dollar Amount And A Fixed Percentage Amount" As Recited In Applicants' Claim 90

The Office Action alleges that "Bernstein teaches a method of asset management which comprises, projected withdrawal rates that correspond[] to desired withdrawal rates both in terms of withdrawal amount and withdrawal percentage." 12/3/02 Office Action at p. 2.

Respectfully, that assertion is incorrect and shows a misunderstanding of Bernstein. Rather than

showing a withdrawal amount having both fixed and a percentage components, Bernstein shows that either one or the other may be used, but <u>not</u> both.

Bernstein's Figures 1 and 2 show the projected effect of withdrawing a <u>fixed</u> dollar amount from a \$1,000,000 portfolio from 1966 onward. In each of these figures, various asset allocation strategies are employed. In Figure 1, \$70,000 (inflation adjusted) is withdrawn each year. In Figure 2, \$40,000 (inflation adjusted) is withdrawn each year.

Bernstein's Figures 3 and 4, by contrast, show the projected effect of withdrawing a <u>fixed percentage amount</u> from a \$1,000,000 portfolio from 1966 onward. In Figure 3, a 7% annual withdrawal is made. In Figure 4, a 5% annual withdrawal is made.

Nowhere does Bernstein present a withdrawal amount having both a fixed dollar components and a fixed percent component. Indeed, Bernstein concludes the article with the following passage:

One point cannot be made often enough – when you retire, are you going to be withdrawing a <u>fixed inflation adjusted amount</u> on a regular basis, or are you going to be withdrawing a <u>fixed percentage</u> of your portfolio? This is not a semantic fine point. If you need a fixed amount, plan on withdrawing no more than about 4.5% of your starting amount in inflation adjusted terms. . . . If you can be more flexible and spend a fixed percentage of your nest egg each year, then you can indeed keep your entire stash in stocks and spend 7% annually.

(Bernstein, pg. 2; emphasis original).

Bernstein's withdrawal amounts are composed of either a fixed amount <u>or</u> a fixed percentage. Accordingly, Bernstein also fails to teach, disclose or suggest the steps of "obtaining for a particular individual . . . a desired withdrawal amount having a fixed dollar amount and a fixed percentage amount . . . and determining, for each of the projected portfolio values, a

projected withdrawal amount that corresponds to the desired withdrawal amount" as recited in Applicants' claim 90.

2. Proper Motivation To Modify The Friend '650 Patent With Bernstein <u>To Arrive At The Invention Of Applicants' Claim 90 Is Lacking</u>

The rejection is also deficient because proper motivation to modify the Friend '650 patent with Bernstein's alleged disclosure is lacking. Reconsideration is requested.

The Office Action argues that the modification of the Friend '650 patent with the selected features of Bernstein to arrive at the invention of applicants' claim 90 would have been obvious to one of ordinary skilled in the art "to provide a reliable tool for projection of withdrawal of a portfolio of assets which meets long term[] needs of an individual as discussed in the 'asset class' reference." 12/3/02 Office Action at p. 6. Respectfully, this argument is in error.

First, the proposed modification would change the principle of operation of the Friend '650 patent rendering it inoperable for its intended purpose. The Friend '650 patent relates to risk management for pension funds. The liabilities of such pension funds are inherently variable. Indeed, the Friend '650 patent discloses that the values of the liabilities are projected. See Friend '650 patent, Col. 2, ln. 54-68 (describing how "benefit cashflow" is projected). Nonetheless, the Office Action proposes to modify the Friend '650 patent to replace projected liabilities with a fixed dollar amount and a fixed percentage withdrawal amount. This would certainly amount to change in the principle of operation possibly rendering the disclosed method inoperable for its intended purpose (testing the viability of pension fund asset allocations).

Second, the alleged motivation is found no where in the cited references and, in fact, is only found in Applicants' own specification. The above-quoted passage from the Office Action suggests that Bernstein discloses that the reliability of asset projections can be enhanced by withdrawal amounts having a fixed dollar and a fixed percentage amount. However, as discussed above, Bernstein contains no such disclosure and instead teaches that withdrawal amounts can either be fixed amounts or fixed percentages – but not both.

Moreover, Bernstein does not disclose the desirability of such a withdrawal plan or even discuss how it could relate to the reliability of the projections. Rather Bernstein states that fixed amount withdrawal schemes may appropriate for some individuals and fixed percentage amount withdrawal schemes may be appropriate for some other individuals. Which scheme is appropriate depends on the individual's ability to withstand varying withdrawal amounts. See Bernstein, pg. 2 ("If you can be more flexible . . . then you can indeed keep your retirement stash in stocks and spend 7% annually.") There simply is no teaching, disclosure or suggestion that the reliability of the projection is enhanced by having withdrawal amounts composed of fixed amounts and fixed percentage amounts. Accordingly, the Office Action's stated motivation is not correct.

Because the cited references fail to teach, disclose or suggest all the elements of independent claim 90 and because there is no proper motivation for the proposed modification, withdrawal of the rejection and allowance is respectfully requested. For at least similar reasons, independent claims 97, 104, 111 and 120 and dependent claims 91-96, 98-103 and 105-110 also are asserted to be in condition for allowance.

## C. Claims 112-119 And 121 Are Patentably Distinct From The Friend '650 Patent In View Of Bernstein

Applicants' independent claim 112 recites:

### 112. A method comprising:

obtaining historical data for a plurality of historical periods, the data comprising historical rates of return for a plurality of asset classes and historical rates of inflation;

obtaining for a particular individual a financial portfolio to be evaluated based on an initial investment allocated to at least one of the asset classes, and a desired withdrawal amount;

generating a probabilistic distribution of investment outcomes for the financial portfolio on an incremental basis within a designated time period by determining a plurality of projected portfolio values using the historical rates of return of the asset classes and the historical rates of inflation; and

determining, for each of the projected portfolio values, a projected withdrawal amount that corresponds to the desired withdrawal amount adjusted for the historical rate of inflation.

As explained below, this claim is patentably distinct from the cited references because a plurality of rates of inflation are used to adjust the withdrawal amount.

1. The Friend '650 Patent Fails To Teach, Disclose Or Suggest
The Step Of "Determining . . . A Projected Withdrawal
Amount That Corresponds To The Desired Withdrawal Amount
Adjusted For [A Plurality Of] Historical Rate[s] Of Inflation"
As Recited In Applicants' Claim 112

The Friend '650 patent is directed to a method for determining optimal asset allocations for pension funds to minimize risk that plan costs will exceed plan cash flow. Data are gathered concerning a pension plan (e.g., participant demographic data) and the plan cost (i.e., withdrawal amount) is projected into the future. The Friend '650 patent, however, fails to mention the use of a plurality of historical rates of inflation for determining the withdrawal

amounts.

Indeed, the Office Action previously admitted that "[the] Friend ['650 patent] fails to teach projected withdrawal amounts for each of the projected values that correspond to a predefined 'desired withdrawal amount." 12/3/02 Office Action at p. 5. Thus, the Friend '650 patent fails to teach, disclose or suggest the step of "determining . . . a projected withdrawal amount that corresponds to the desired withdrawal amount adjusted for [a plurality of] historical rate[s] of inflation" as recited in Applicants' claim 112.

The 12/3/02 Office Action's citation at page 9 of Col. 3, lns. 37-47 in this regard is understood to refer to U.S. Patent No. 5,774,881 to Friend et al. ("the Friend '881 patent"), which discloses in a preferred embodiment that "a comprehensive database of historical Consumer Price Indices (CPI's) and historical market results for stocks, bonds and cash equivalents are sampled to generate the asset cash flow projections." (emphasis added). Thus, the Friend '881 patent discloses using historical CPI data to project flows into the pension fund. However, the Friend '881 patent does not describe using this CPI database for use with projected withdrawal amounts. Accordingly, the Friend '881 patent also fails to teach, disclose or suggest "determining . . . a projected withdrawal amount that corresponds to the desired withdrawal amount adjusted for [a plurality of] historical rate[s] of inflation" as recited in Applicants' claim 112.

2. Bernstein Fails To Teach, Disclose Or Suggest The Step Of "Determining . . . A Projected Withdrawal Amount That Corresponds To The Desired Withdrawal Amount Adjusted For [A Plurality Of] Historical Rate[s] Of Inflation" As Recited In Applicants' Claim 112

The Office Action relies on Bernstein because it mentions that withdrawal

amounts are "inflation adjusted." However, there is absolutely no description of how this is accomplished. There is no teaching, disclosure or suggestion of the desirability of capturing the correspondence between historical rates of return, historical rates of inflation and future expected withdrawals.

Accordingly, Bernstein also fails to teach, disclose or suggest the step of "generating a probabilistic distribution of investment outcomes . . . and determining, for each of the projected portfolio values, a projected withdrawal amount that corresponds to the desired withdrawal amount adjusted for the historical rate of inflation" as recited in Applicant's claim 112.

Moreover, as discussed above in section B(3), proper motivation is lacking to modify the Friend '650 patent with the disclosure of Bernstein because (1) the proposed modification would change the principle of operation of the Friend '650 patent and/or render it inoperable for its intended purpose and because (2) the alleged motivation is found no where in the cited references and, in fact, is only found in Applicants' own specification.

Because all of the claim elements are not shown in the cited references and because there is no proper motivation for the proposed modification, withdrawal of the rejection and allowance of claim 112 is respectfully requested. For at least similar reasons, independent claim 121 and dependent claims 113-119 also are asserted to be in condition for allowance.

#### CONCLUSION

Based on the foregoing amendments and remarks, Applicants respectfully request reconsideration and allowance of the application. In the event that an interview would expedite prosecution of this application in any way, the Examiner is invited to contact Applicants' counsel at the telephone number provided below.

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED FOR THE TIMELY CONSIDERATION OF THIS AMENDMENT UNDER 37 C.F.R. §§ 1.16 AND 1.17, OR CREDIT ANY OVERPAYMENT TO DEPOSIT ACCOUNT NO. 13-4500, ORDER NO. 3635-4000.

By:

Respectfully submitted, MORGAN & FINNEGAN, L.L.P.

Dated: February 21, 2003

Matthew K. Blackburn Registration No. 47,428

Correspondence Address:

MORGAN & FINNEGAN, L.L.P. 345 Park Avenue New York, NY 10154-0053 (212) 758-4800 Telephone (212) 751-6849 Facsimile

# APPENDIX A Claims With Interlineated Changes

90. (amended). A method comprising:

obtaining data comprising rates of return for a plurality of asset classes and at least one rate of inflation;

obtaining for a particular individual a financial portfolio to be evaluated based on an initial investment allocated to at least one of the asset classes, and a desired withdrawal amount having a fixed dollar amount and a fixed percentage amount;

generating a probabilistic distribution of investment outcomes for the financial portfolio on an incremental basis within a designated time period by determining a plurality of projected portfolio values using the rates of return for the asset classes and the rate of inflation; and

determining, for each of the projected portfolio values, a projected withdrawal amount that corresponds to the desired withdrawal amount by adding together the fixed percentage amount of the projected portfolio value and the fixed dollar amount.

97. (amended). A computer-readable medium having computer-executable instructions, comprising instructions for:

obtaining data comprising rates of return for a plurality of asset classes and at least one rate of inflation;

obtaining for a particular individual a financial portfolio to be evaluated based on an initial investment allocated to at least one of the asset classes, and a desired withdrawal amount having a fixed dollar amount and a fixed percentage amount;

generating a probabilistic distribution of investment outcomes for the financial portfolio

on an incremental basis within a designated time period by determining a plurality of projected portfolio values using the rates of return of the asset classes and the rate of inflation; and

determining, for each of the projected portfolio values, a projected withdrawal amount that corresponds to the desired withdrawal amount by adding together the fixed percentage amount of the projected portfolio value and the fixed dollar amount.

104. (amended). An apparatus for facilitating asset allocation and withdrawal strategy, the apparatus comprising:

a storage device;

a processor connected to the storage device;

a program stored in the storage device and configured to control the processor; and the processor operative with the program to:

obtain data comprising rates of return for a plurality of asset classes and at least one rate of inflation;

select for a particular individual a financial portfolio to be evaluated having an initial investment allocated to at least one of the asset classes, and a desired withdrawal amount having a fixed dollar amount and a fixed percentage amount;

generate a probabilistic distribution of investment outcomes for the financial portfolio on an incremental basis within a designated time period by determining a plurality of projected portfolio values using the rates of return of the asset classes and the rate of inflation; and

determining, for each of the projected portfolio values, a projected withdrawal amount that corresponds to the desired withdrawal amount by adding together the fixed percentage

amount of the projected portfolio value and the fixed dollar amount.

111. (amended). A computer program comprising:

first program means for obtaining data comprising rates of return for a plurality of asset classes and at least one rate of inflation;

second program means for obtaining for a particular individual a financial portfolio to be evaluated based on an initial investment allocated to at least one of the asset classes, and a desired withdrawal amount having a fixed dollar amount and a fixed percentage amount; and

third program means for generating a probabilistic distribution of investment outcomes for the financial portfolio on an incremental basis within a designated time period by determining a plurality of projected portfolio values using the rates of return of the asset classes and the rate of inflation, and determining, for each of the projected portfolio values, a projected withdrawal amount that corresponds to the desired withdrawal amount by adding together the fixed percentage amount of the projected portfolio value and the fixed dollar amount.

- 116. (amended). The method of claim 112, wherein the desired withdrawal amount comprises:
  - a fixed dollar withdrawal amount; and
- a fixed percentage withdrawal amount [that varies according to] <u>expressed as a percentage of</u> a value of each of the investment outcomes.
- 117. (amended). The method of claim 116, further comprising the step of displaying to the individual an illustration of the distribution of investment outcomes for the financial portfolio, wherein the illustration is a withdrawal chart having an x-axis that ranges from a worst case scenario to a best case scenario, and y-axis that ranges, on the incremental basis, from the

beginning to the end of the designated time period and the withdrawal chart containing the projected portfolio values as well as the total amount of the fixed dollar withdrawal amount and the fixed percentage withdrawal amount expressed as a percentage amount of the projected portfolio value.

120. (amended). A method comprising:

obtaining data comprising historical rates of return for a plurality of asset classes for a plurality of historical periods and data comprising at least one rate of inflation;

obtaining for a particular individual a financial portfolio to be evaluated based on an initial investment allocated to at least one of the asset classes, and a desired withdrawal amount [selected from the group consisting of:] <u>comprising</u> a fixed dollar amount[,] <u>and</u> a fixed percentage of the projected portfolio value[, and combinations thereof];

generating a probabilistic distribution of investment outcomes for the financial portfolio on an incremental basis within a designated time period by determining a plurality of projected portfolio values using the historical rates of return of the asset classes and the rate of inflation; and

determining, for each of the projected portfolio values, a projected withdrawal amount that corresponds to the desired withdrawal amount by adding together the fixed percentage amount of the projected portfolio value and the fixed dollar amount and adjusting[adjusted] for the rate of inflation.